

US009636839B2

(12) United States Patent

Smithwick, Jr.

(54) ROTARY CUTTING DIE FOR CUTTING CORRUGATED BOARD HAVING AN INSERT FOR SUPPORTING A PRODUCT EJECTOR ADJACENT A CUTTING OR SCORING RULE

(71) Applicant: Container Graphics Corporation,

Cary, NC (US)

(72) Inventor: James M. Smithwick, Jr., New Bern,

NC (US)

(73) Assignee: Container Graphics Corporation,

Cary, NC (US)

(*) Notice: Subject to any disclaimer, the term of this

patent is extended or adjusted under 35

U.S.C. 154(b) by 0 days.

(21) Appl. No.: 14/813,419

(22) Filed: Jul. 30, 2015

(65) Prior Publication Data

US 2017/0028581 A1 Feb. 2, 2017

(51) Int. Cl.

B26D 7/06 (2006.01)

B26F 1/38 (2006.01)

B26D 7/18 (2006.01)

B26F 1/44 (52) **U.S. Cl.**

CPC *B26F 1/384* (2013.01); *B26D 7/1818* (2013.01); *B26F 1/44* (2013.01)

(2006.01)

(10) Patent No.: US 9,636,839 B2

(45) **Date of Patent:**

May 2, 2017

(58) Field of Classification Search

CPC B26F 1/384; B26F 1/44; B26D 7/1818; Y10T 83/9437

(56) References Cited

U.S. PATENT DOCUMENTS

9,011,132 E	31 * 4/2015	Wei B29C 37/02
		425/290
9,067,335 E	32 * 6/2015	Dulaney B26F 1/384
2011/0265620 A	A1* 11/2011	Kicinski B26D 7/1818
		83/27
2012/0111165 A	A1* 5/2012	Closmann B26D 7/1854
		83/100

* cited by examiner

Primary Examiner — Omar Flores Sanchez (74) Attorney, Agent, or Firm — Coats and Bennett, PLLC

(57) ABSTRACT

A rotary cutting die for cutting corrugated board includes a die board having an opening therein. Extending through the opening is a cutting or scoring rule. Secured within the opening is one or more inserts that support one or more product ejectors for assisting in separating a die cut product from the cutting die.

21 Claims, 7 Drawing Sheets

